

Actions

Actions: These are the activities performed when we trigger an event.

Actions Filter : Target visual will be filtered with reference to source visual.

The screenshot displays the Tableau Public interface with a dashboard titled 'Tableau Public - Book3'. The dashboard shows a bar chart of sales by category (Furniture, Office Supplies, Technology) with a y-axis representing sales volume (0K to 200K). The 'Columns' shelf contains 'Category' and the 'Rows' shelf contains 'SUM(Sales)'. The 'Filters' shelf is empty. The 'Marks' shelf is set to 'Automatic'. The 'Dimensions' list includes Product Name, Region, Segment, Ship Date, Ship Mode, Ship Mode (group), Ship Status, State, State (group), Sub-Category, and Measure Names. The 'Measures' list includes Days to Ship Actual, Days to Ship Scheduled, Discount, Profit, Profit per Order, Profit Ratio, Quantity, Sales, Sales Forecast, and Sales per Customer. The 'Edit Filter Action' dialog box is open, showing the following settings:

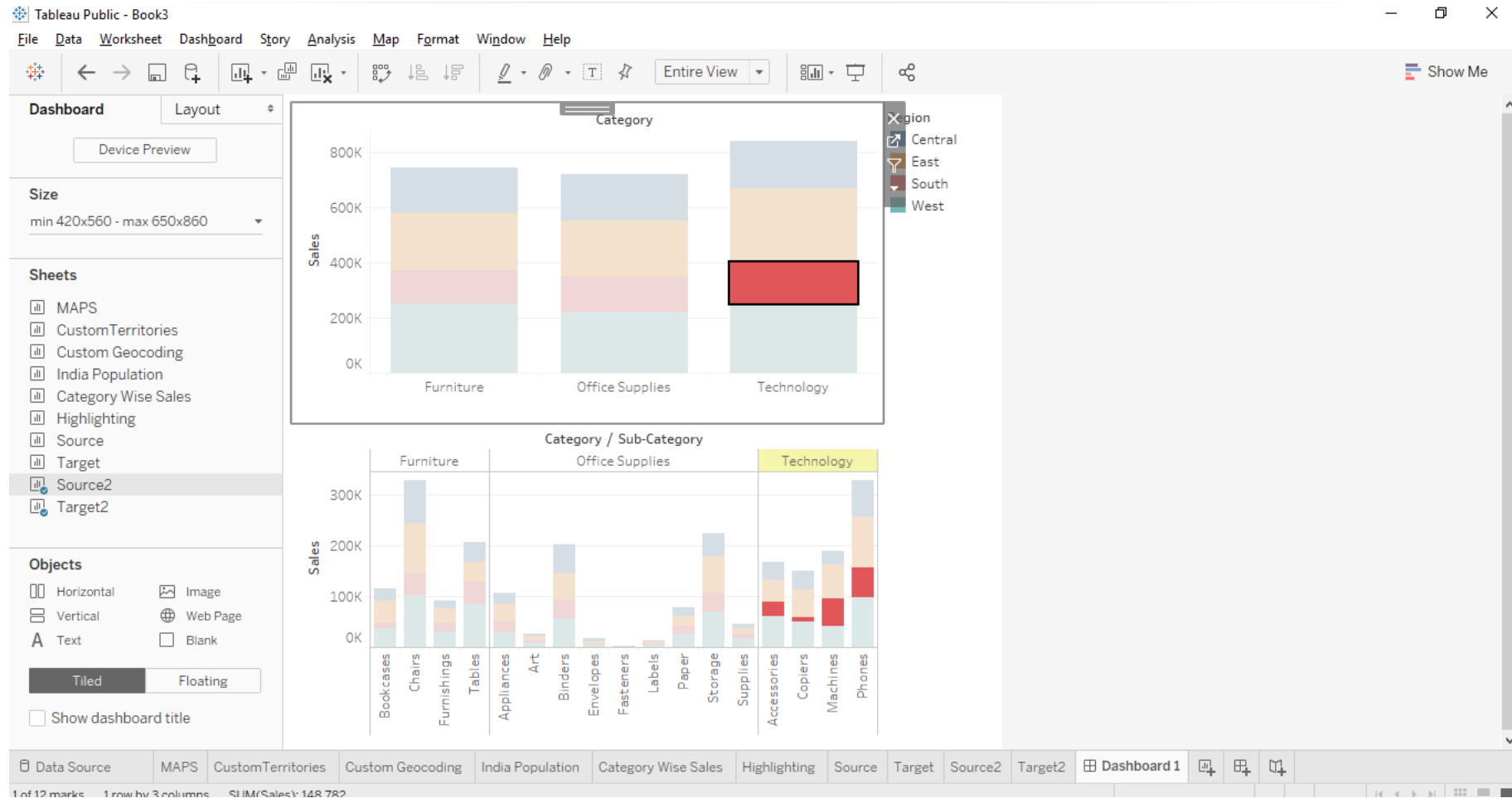
- Name:** Filter1
- Source Sheets:** Sample - Superstore (Sample-SuperstoreV1)
- Run action on:** Select (selected), Hover, Menu
- Target Sheets:** Target
- Clearing the selection will:** Leave the filter (selected), Show all values, Exclude all values
- Target Filters:** All Fields (selected)
- Source Field, Target Field, Target Data Source:** (Empty table)
- Buttons:** Add Filter..., Edit..., Remove, OK, Cancel

The dialog box also includes a checkbox for 'Show actions for all sheets in this workbook' and a table for 'Actions' with columns for Name, Run On, and Source.



Actions

Actions Highlight: Using this feature highlighting will be done with some event.



Actions

Actions URL: This feature allows us to open a browser when some event occurs.

The screenshot shows the Tableau Public interface with a map of the United States. The map displays state-level sales data with labels for each state, including population and sales figures. Overlaid on the map are two dialog boxes: 'Actions' and 'Edit URL Action'.

Actions Dialog:

Name	Run On	Source	Fields
Hyperlink1	Menu	Sheet 3	State

Edit URL Action Dialog:

Name:

Source Sheets: Run action on:

URL:

https://en.wikipedia.org/wiki/<State>

☐ URL Encode Data Values Item Delimiter:
☐ Allow Multiple Values Delimiter Escape:

URL Target: ☐ New Browser Tab ☐ Web Page Object ☒ Browser Tab if No Web Page Object Exists



Actions

Actions Parameter : This feature allows us to dynamically set the value of the parameter.

- Create a parameter
- Create a Calculated field
- Assign action to assign the value to the parameter

The screenshot displays the Tableau Desktop interface. The main view is a horizontal bar chart titled "ACTION PARAMETER". The chart has two dimensions: "Category" (Technology, Furniture, Office Supplies) and "SC" (Phones, Machines, Accessories, Copiers). The measure is "SUM(Sales)". The bars are colored red for Technology, blue for Furniture, and orange for Office Supplies. The x-axis is labeled "Sales" and ranges from 0K to 800K. The y-axis lists the categories and sub-categories. The chart shows the following sales values:

Category	SC	Sales
Technology	Phones	189,239
Technology	Machines	167,380
Technology	Accessories	149,528
Furniture	Copiers	742,000
Office Supplies		9,047

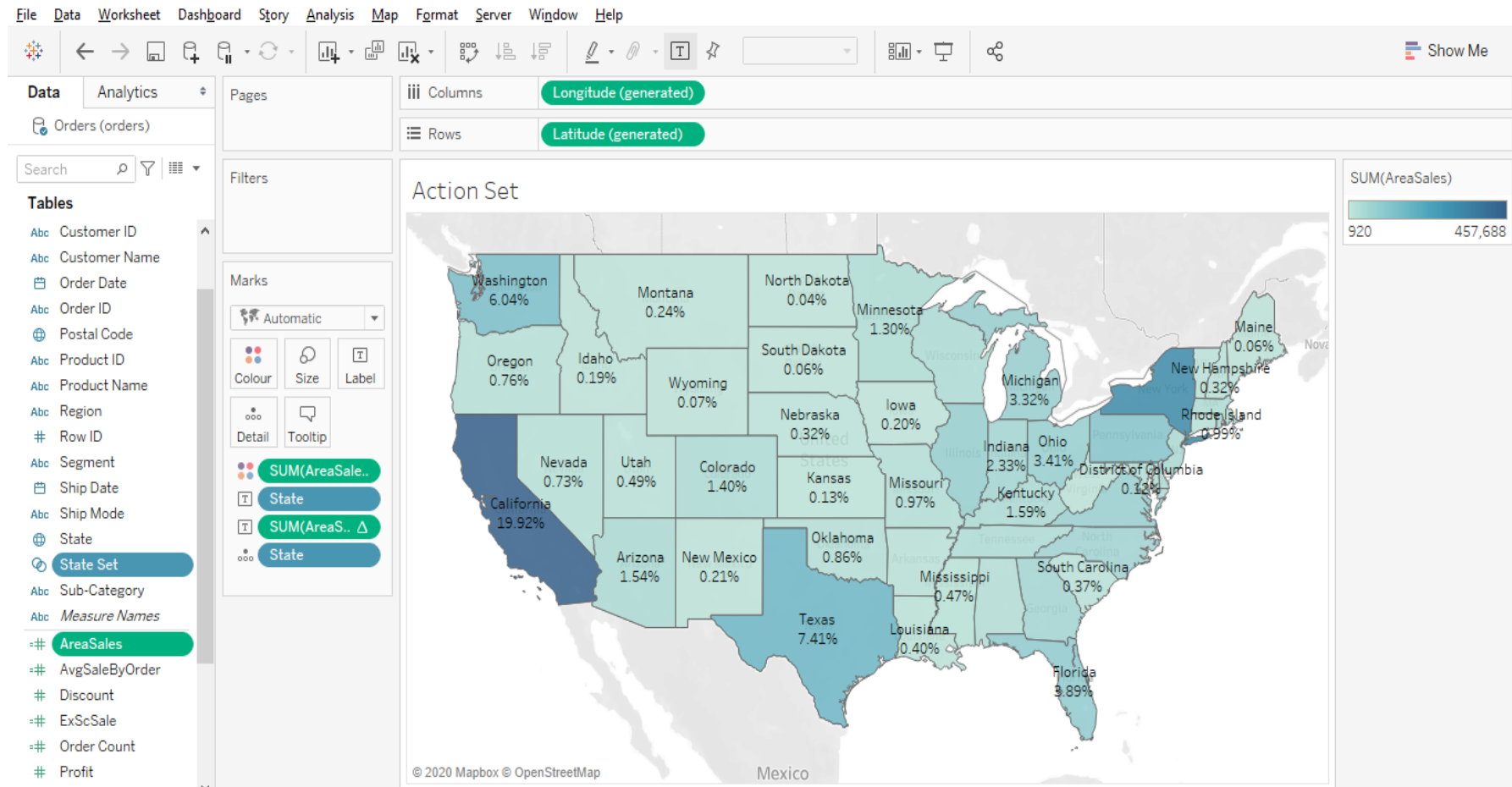
Two dialog boxes are overlaid on the chart:

- Actions**: This dialog box shows a table of actions. The table has columns: Name, Run On, Source, and Fields. The first row is "Parameter 1", "Select", "ACTION PARAMETER", and "PSC".
- Edit Parameter Action**: This dialog box is for editing the "Parameter 1" action. It has a "Name" field set to "Parameter 1". The "Source Sheets" section shows "ACTION PARAMET..." selected. The "Run action on:" section has "Select" selected. The "Target" section has "Parameter" set to "ABC PSC", "Field" set to "ABC", and "Aggregation" set to "None". The "Clearing the selection will:" section has "Set value to" selected.



Actions Set: This feature allows us to dynamically pass the values to the set.

- Create a Set
- Create a Calculated field
- Assign action to set



ASSIGNMENT



- Using India Map Represent state wise percentage of Covid cases.
- In the another sheet create a bar chart to represent state wise Total Covid Cases, Recovered & Deaths.
- Use action so that the bar graph representation of Covid details should be displayed for the highlighted state.
- In sheet 1 represent Category & Region wise profit, category should be bifurcated on the basis of region.
- In sheet 2 represent Category , Subcategory & Region wise profit.
- Implement an Action on sheet 1 so that sheet 2 which is filtered on region & subcategory for the selected region in sheet 1.
- Create a US Map to display the %age sales contribution of each state. Implement an set action to give the sales comparison of the selected area.
- Represent segment wise profit using a barchart, Implement a action Parameter so that it can be drill down to region.



LOD Calculations

Level of detail expression allows us to compute aggregation that are not on level detail of the visualization

FIXED – Include the expression immaterial of it being included in the visualization is not included in the view

The screenshot shows the Tableau Desktop interface. The 'Columns' shelf contains 'Measure Names' and the 'Rows' shelf contains 'Category' and 'Sub-Category'. The main view is a table titled 'Sheet 9' showing sales data for 'Furniture', 'Office Supplies', and 'Technology'. A dialog box is open over the table, showing the calculation `{FIXED [Category] : SUM([Sales])}` and confirming it is valid.

Category	Sub-Category	FIXEDCATSALES	Sales
Furniture	Bookcases	742,000	114,880
	Chairs	742,000	328,449
	Furnishings		91,705
	Tables		206,966
Office Supplies	Appliances		107,532
	Art		27,119
	Binders		203,413
	Envelopes		16,476
	Fasteners		3,024
	Labels		12,486
	Paper		78,479
	Storage		223,844
	Supplies		46,674
	Technology	Accessories	
Copiers		836,154	149,528
Machines		836,154	189,239
Phones		836,154	330,007



LOD Calculations

Level of detail expression allows us to compute aggregation that are not on level detail of the visualization

EXCLUDE – exclude the expression even if it is included in the view

The screenshot shows the Tableau Desktop interface with a table calculation. The Columns shelf contains 'Measure Names' and the Rows shelf contains 'Region' and 'Sub-Category'. The view displays a table of sales data, with a dialog box showing the formula for the 'EXCLUDE' calculation.

Tableau - Book3

File Data Worksheet Dashboard Story Analysis Map Format Server Window Help

Search

Tables

- Order Date
- Order ID
- Postal Code
- Product ID
- Product Name
- Profit (bin)
- Quantity (bin)
- Quantity (bin) 2
- Quantity (bin) 3
- Region
- Row ID
- Sales (bin)
- Segment
- Ship Date
- Ship Mode
- State
- Sub-Category
- Measure Names
- Avg Subcat
- AvgSalePerOrder
- Discount
- EXCLUDESC
- FIXEDCATSales

Filters

- Measure Names

Marks

- Automatic
- Colour
- Size
- Text
- Detail
- Tooltip
- Region
- Measure Values
- ATTR(EXCLUDESC)
- SUM(Sales)

Measure Values

- ATTR(EXCLUDESC)
- SUM(Sales)

Sheet 10

Region	Sub-Category	EXCLUDESC	Sales
Central	Accessories	501,240	33,956
	Appliances	501,240	23,582
	Art	501,240	5,765
	Binders		56,923
	Bookcases		24,157
	Chairs		85,231
	Copiers		37,260
	Envelopes		4,637
	Fasteners		772
	Furnishings		15,254
East	Labels		2,451
	Machines		26,797
	Paper		17,492
	Phones		72,403
	Storage		45,930
	Supplies		9,467
	Tables		39,155
	Accessories		45,033
	Appliances		34,188
	Art		7,486

EXCLUDESC

{EXCLUDE [Sub-Category] : SUM([Sales])}

The calculation is valid. 1 Dependency

Apply OK

Union.Table Name

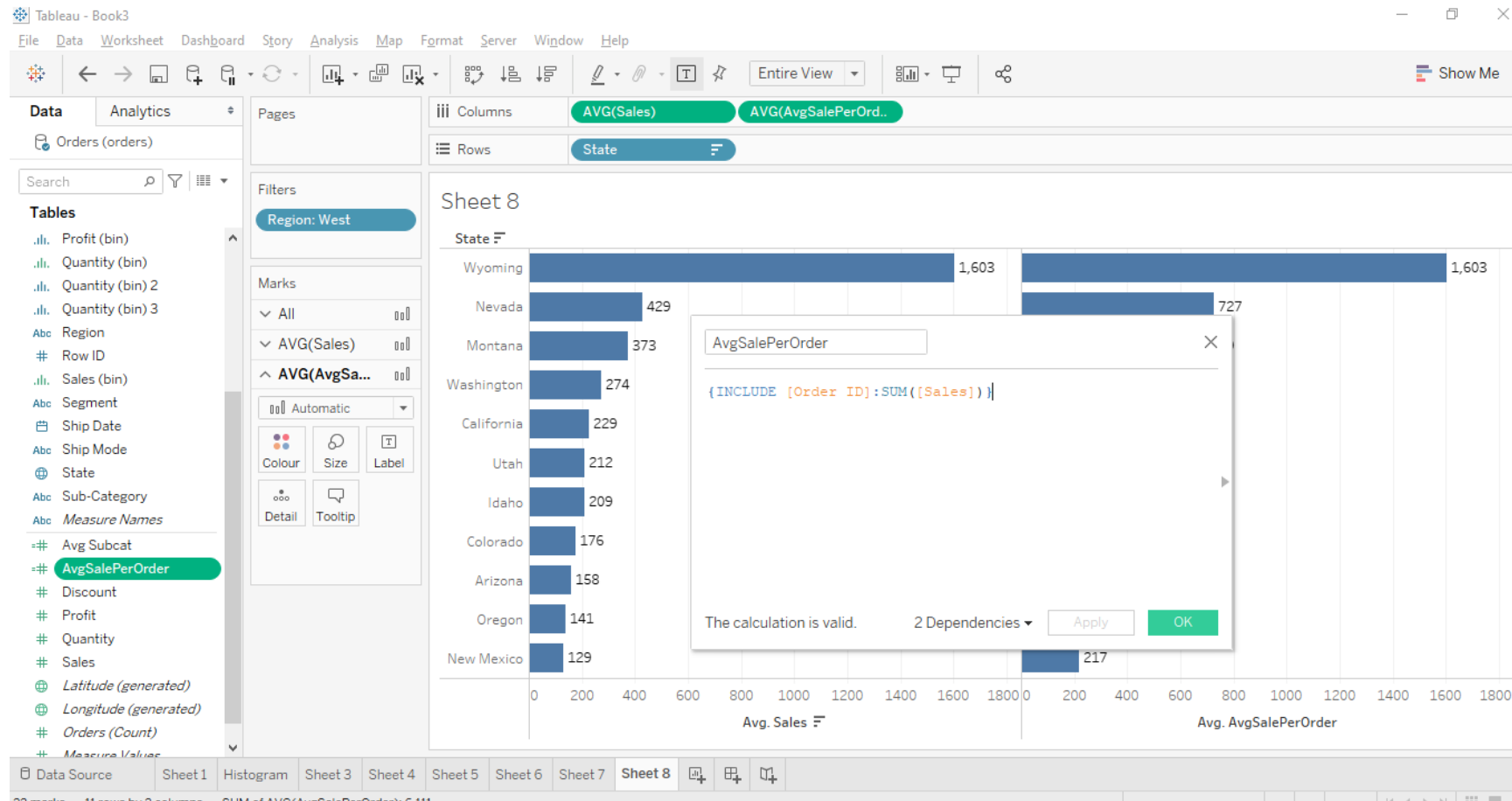
136 marks, 68 rows by 2 columns, SUM of Measure Values: 41,349,615



LOD Calculations

Level of detail expression allows us to compute aggregation that are not on level detail of the visualization

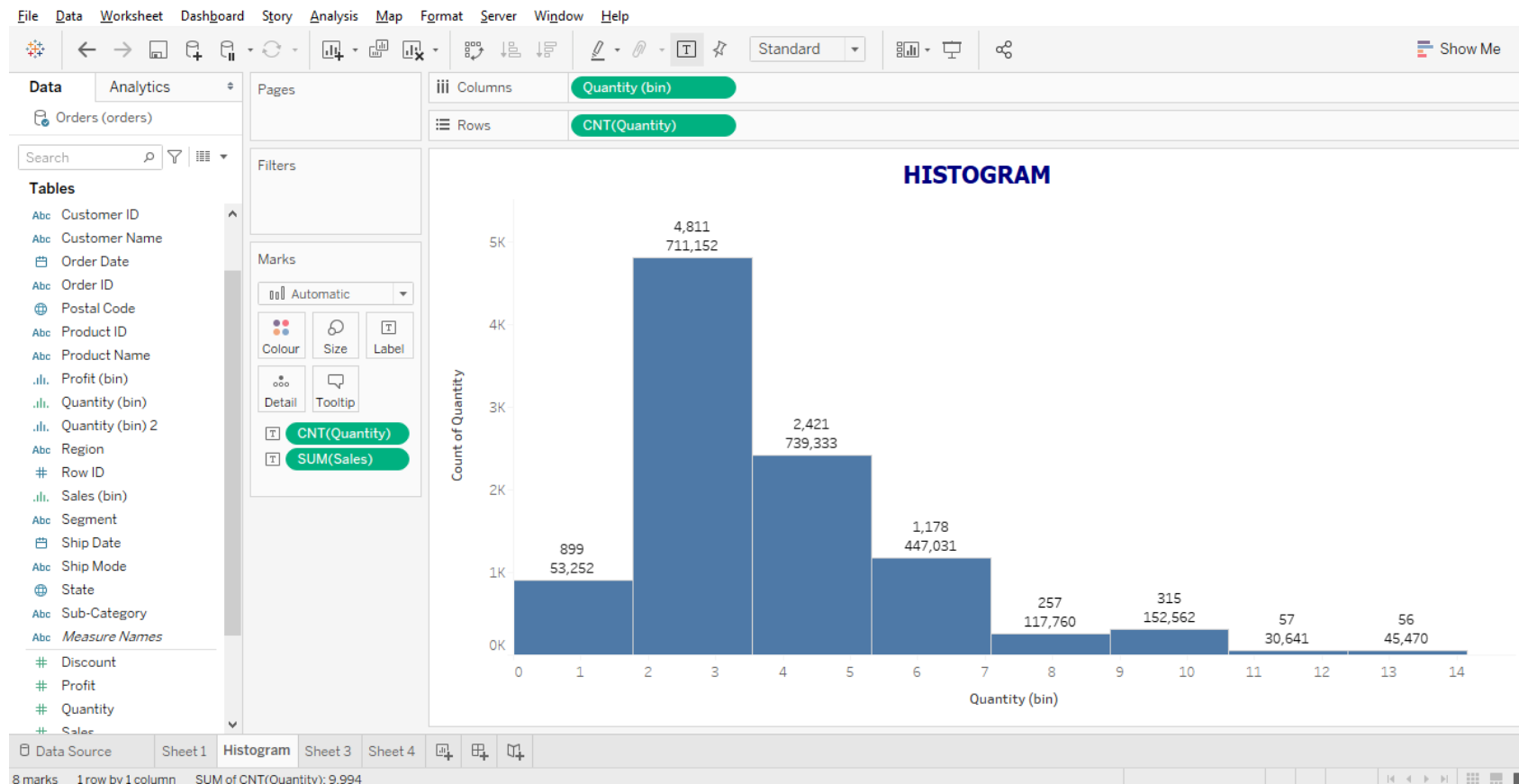
INCLUDE – Include the expression even if it is not included in the view



Histogram

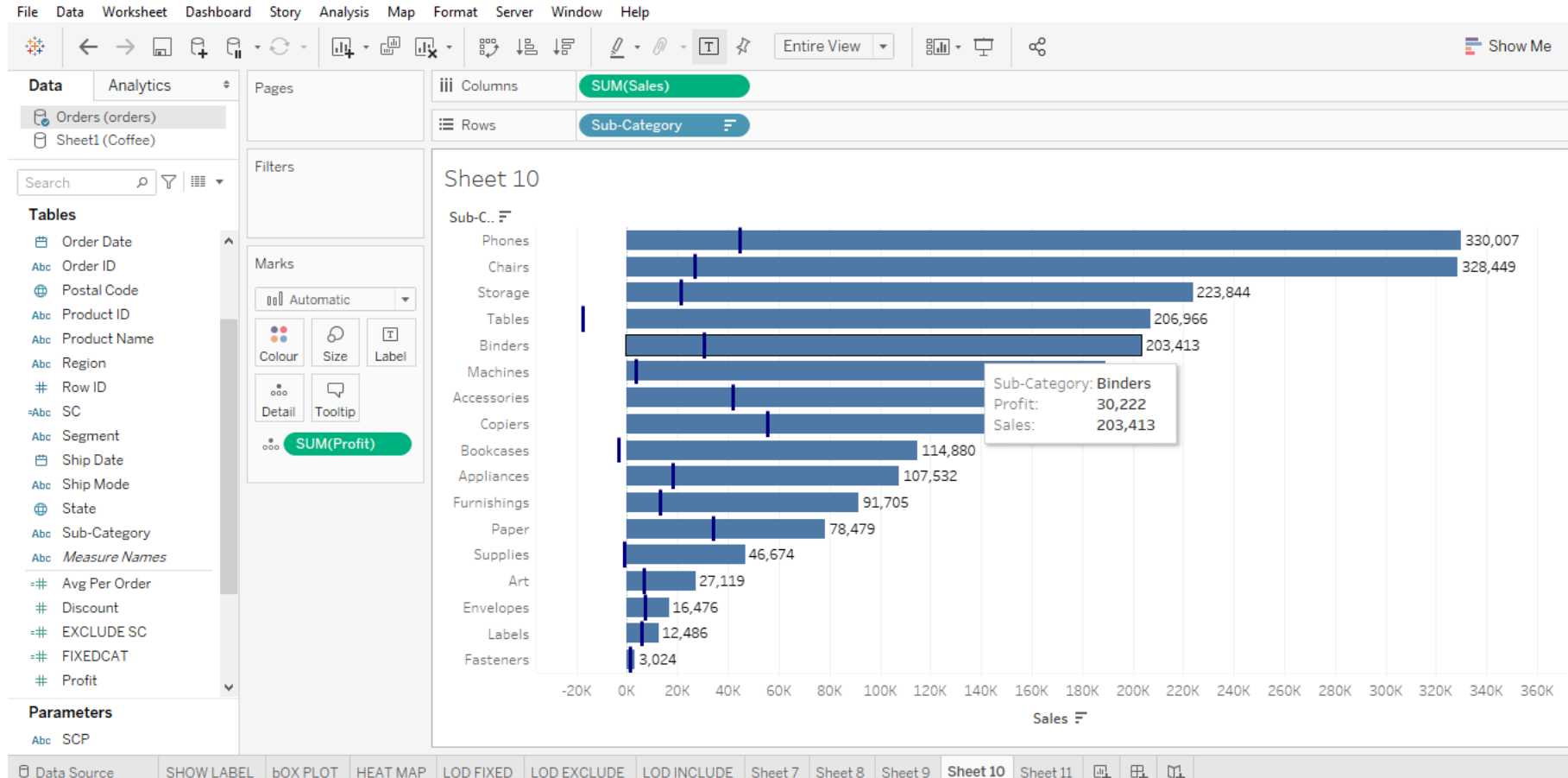
Histogram is same like bar chart however, it groups the values into range. Each bar in histogram represents the number of values present in that range.

Tableau creates a histogram by taking one measure. It creates an additional bin field for the measure used in creating a histogram.



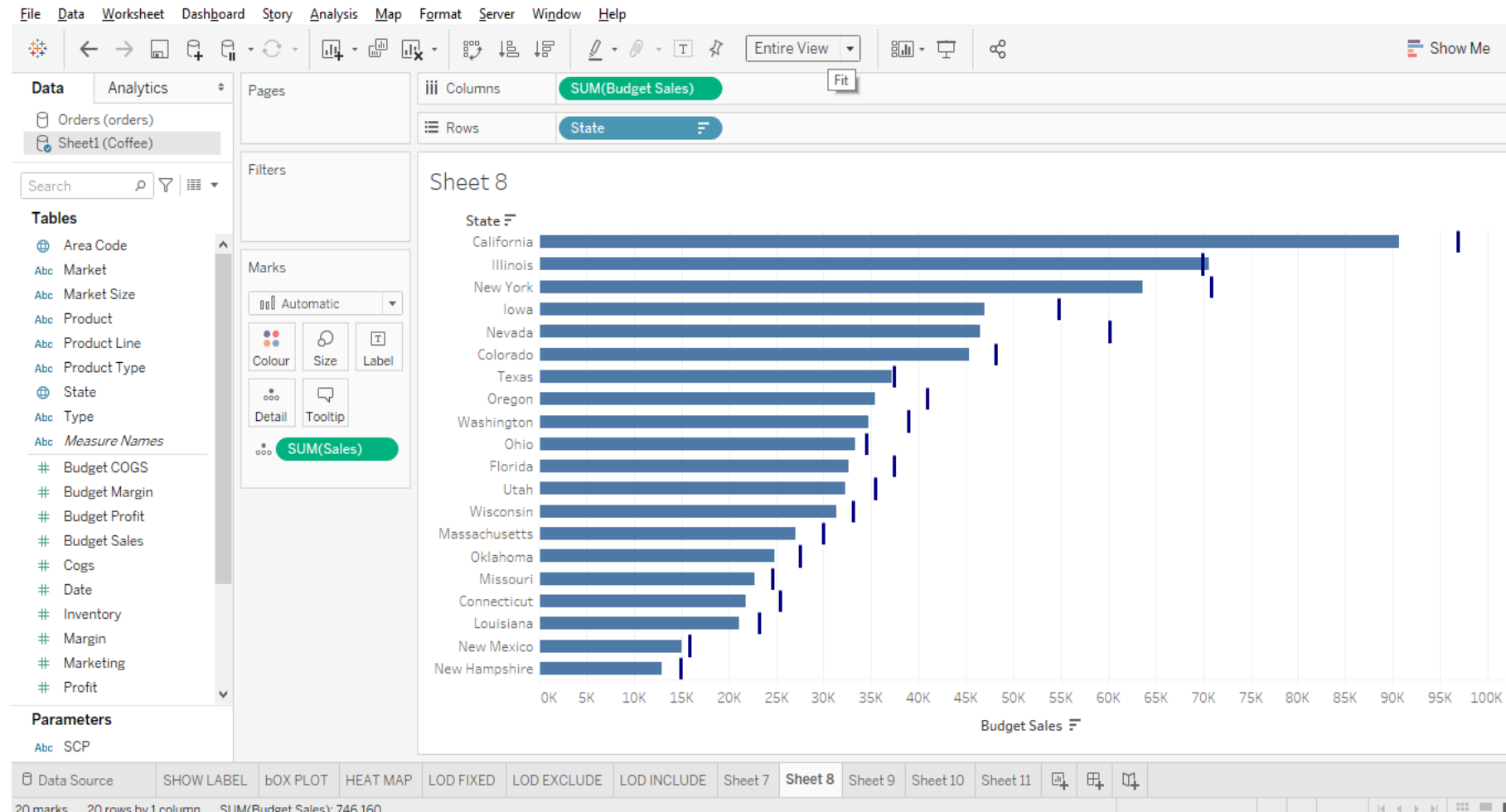
Bullet Chart

Bullet Chart is a variation of Bar graph, used to compare value of one measure with another measure in the context of finding the variation in the first measure within a range of variations in the second measure.



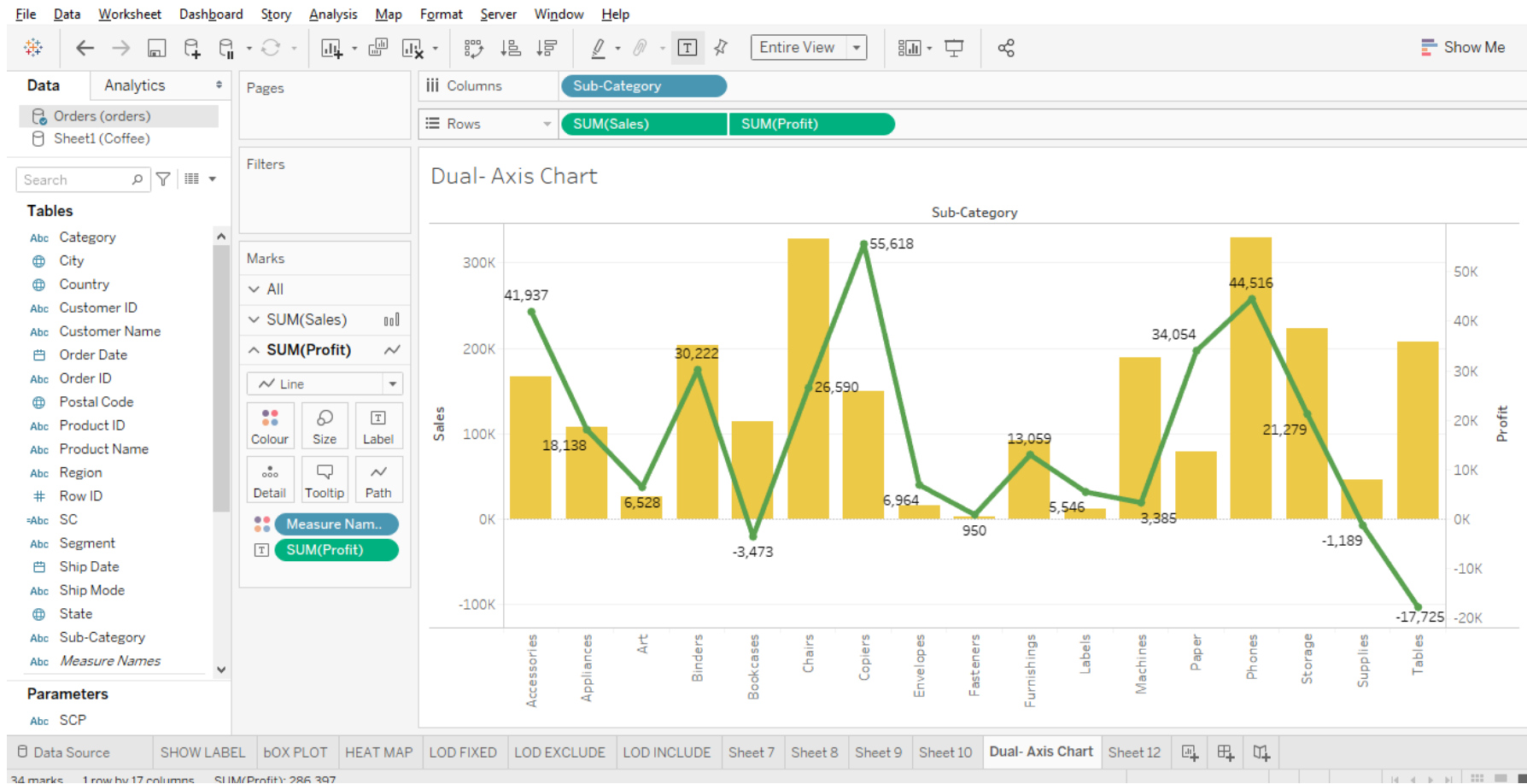
Bullet Chart

Comparison of Sales target and Actual sales (Coffee Data Source)



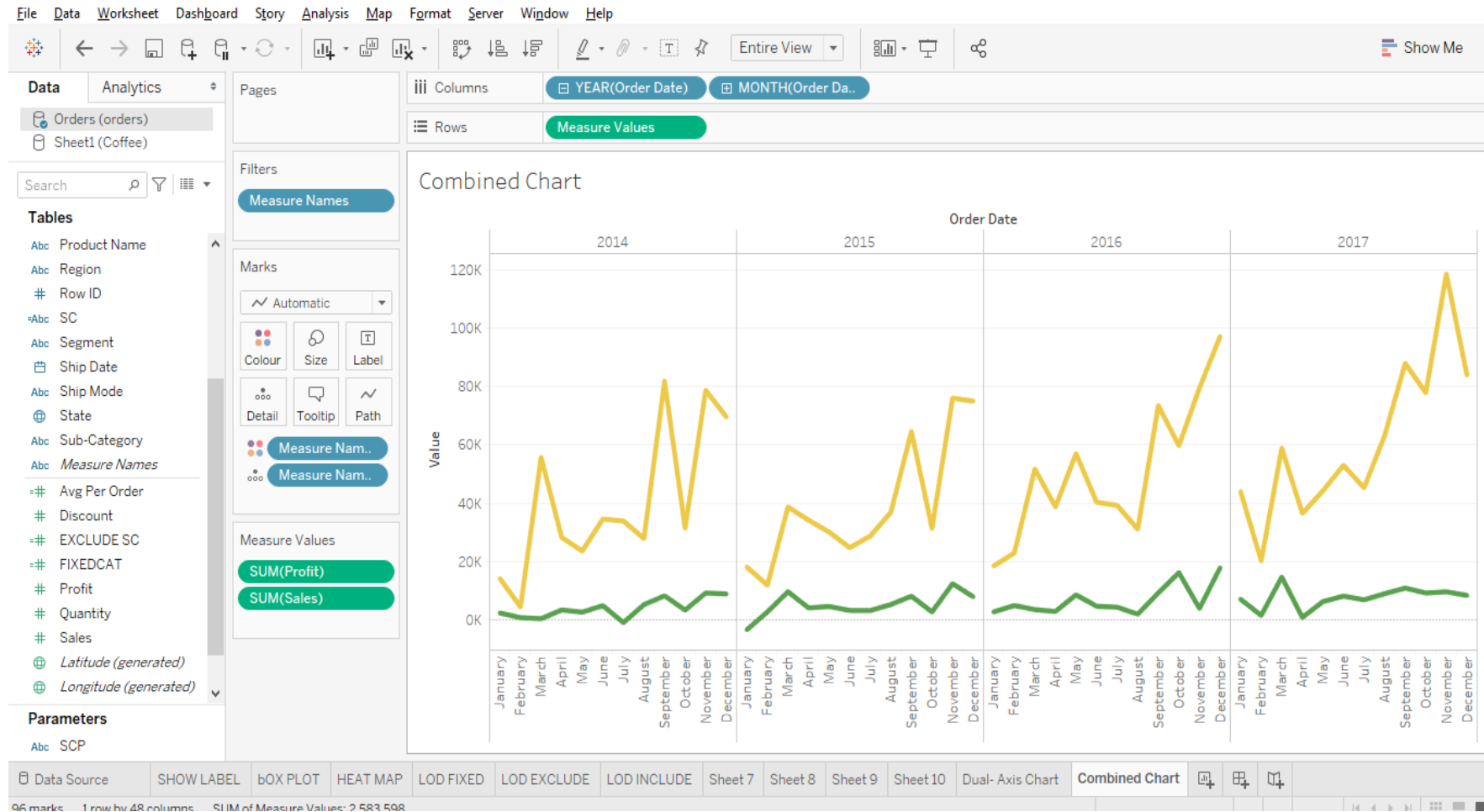
Dual- Axis Chart

In Dual Axis chart we have two Y – Axis. These are helpful when we want to see the relationship between two or more variables in a limited space and in one view.



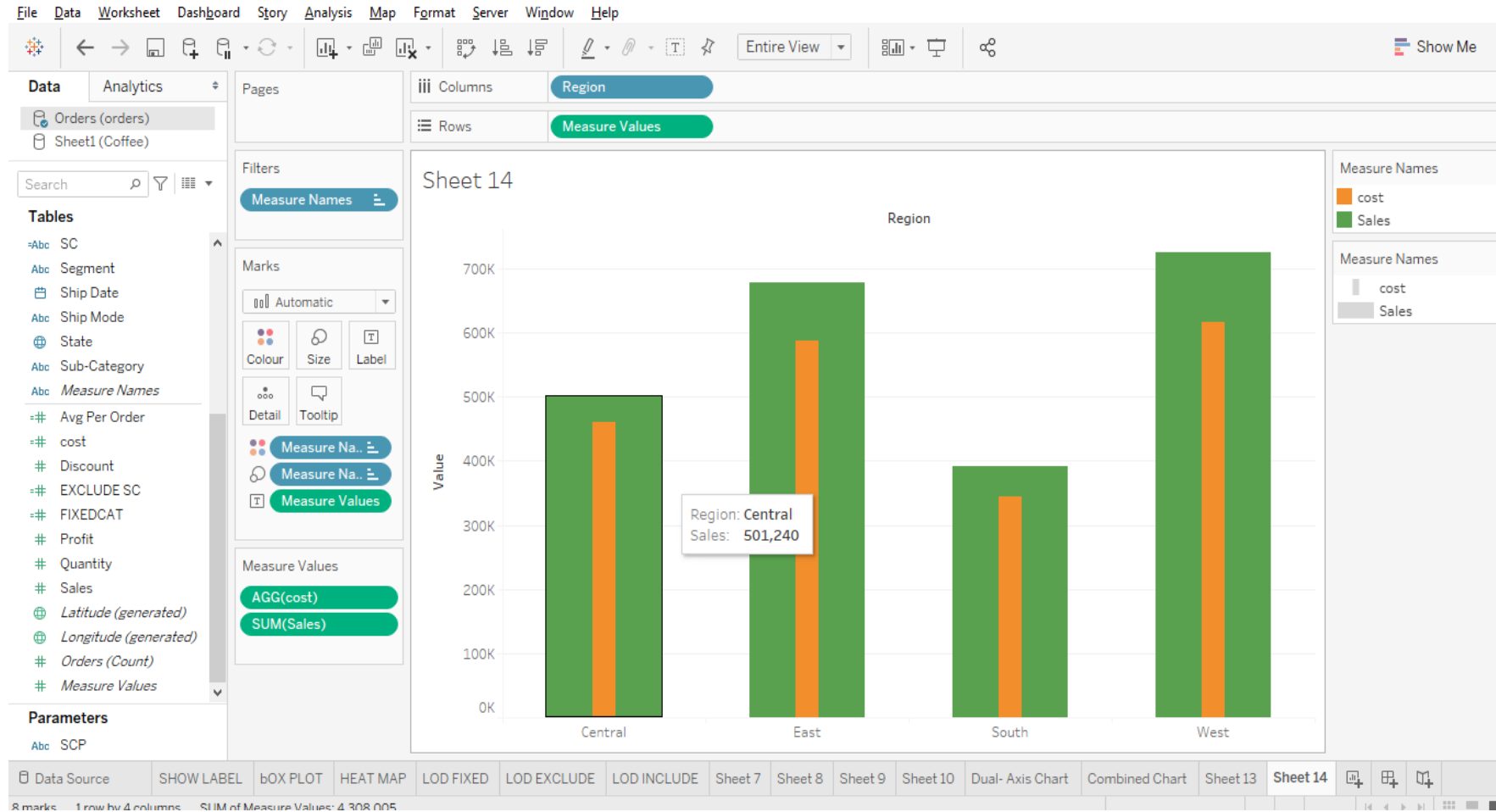
Combined Chart

In Combined Chart two or more measures are plotted on same Y-Axis



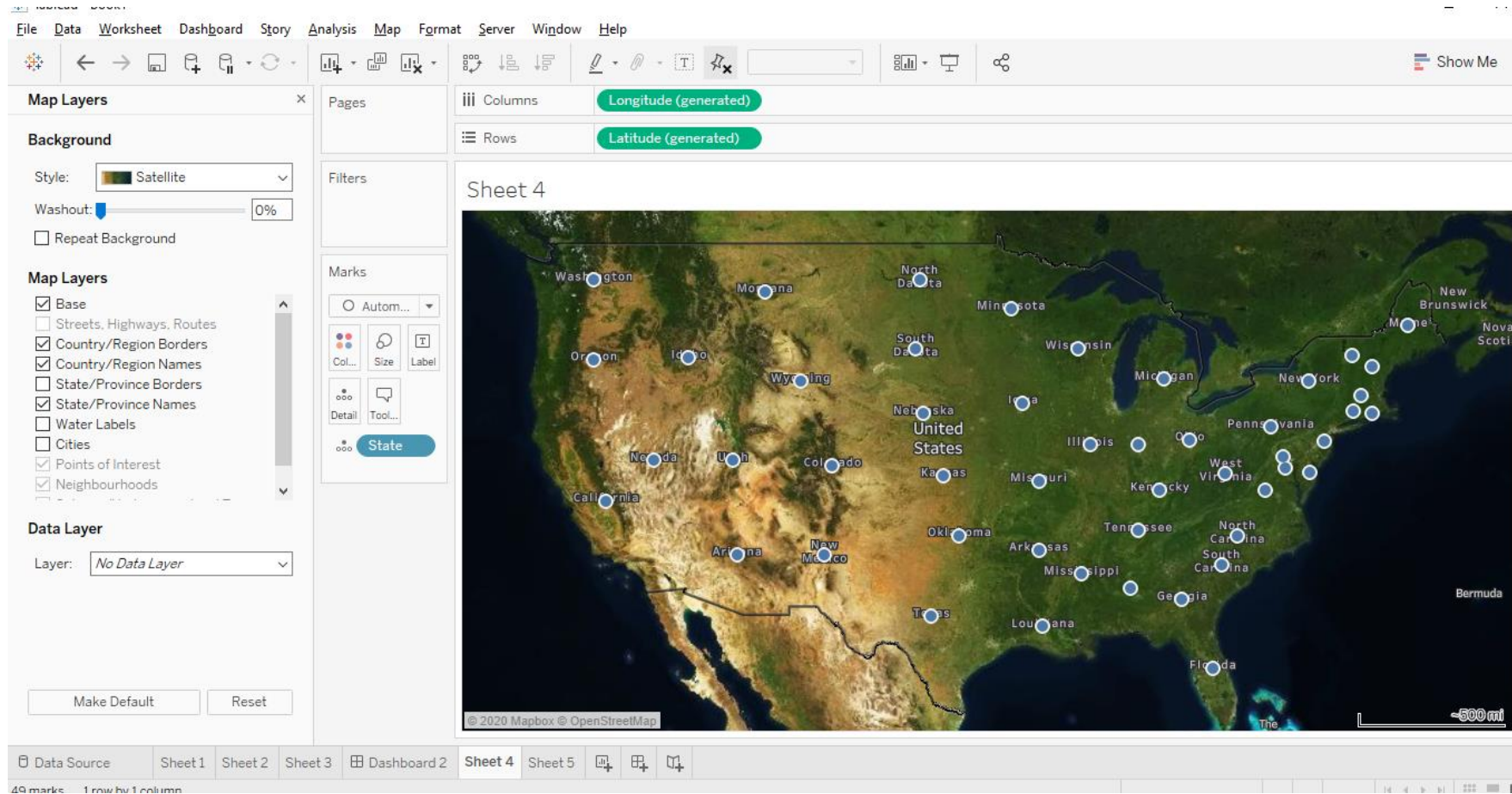
Bars in Bar Chart

Bar in Bar chart is used when we need to plot two measures in the same bar. These are useful for comparing the two measures.



Map Layers

Map layers are used to give other layers (layout) or background to Map like coast lines or Satellite



Map Layers – Back Ground Image

Back Ground Image can be used to create a custom map in Tableau

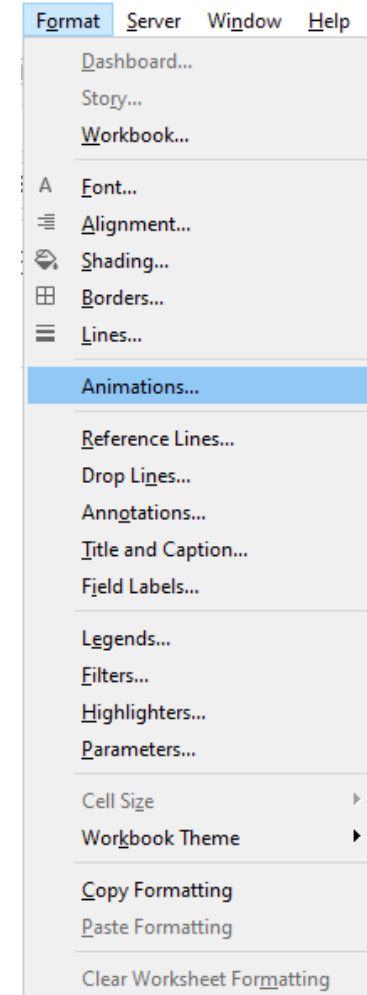
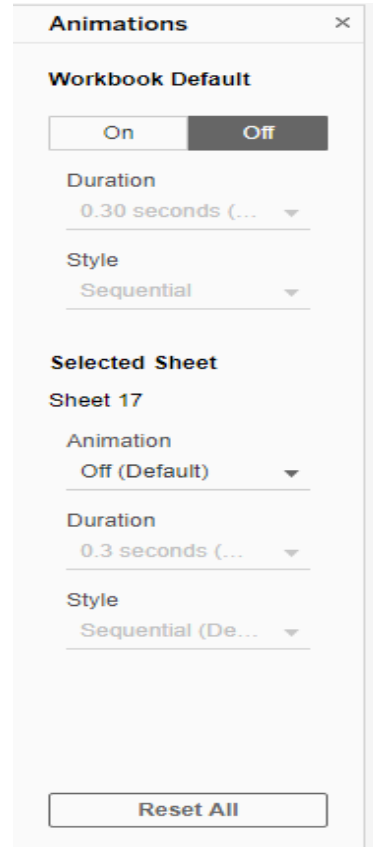
The screenshot displays the Tableau software interface. The top menu bar includes File, Data, Worksheet, Dashboard, Story, Analysis, Map, Format, Server, Window, and Help. The toolbar contains various icons for navigation and analysis. The left sidebar shows the 'Data' pane with 'Car (bodylocation)' and 'Orders (orders)' tables. The 'Tables' section lists 'Part' and 'Measure Names'. The 'Marks' card is set to 'Aut...' and includes options for 'Co...', 'Size', 'La...', 'De...', 'To...', 'Sh...', and a 'Part' button. The main view is 'Sheet 5', which displays a custom map of a brown Ford EcoSport car. The car is labeled with various parts: ROOF, Side MIRROR, DOOR, ALLOY WHEELS, HEAD LAMP, FOG LAMP, BONNET, GRILL, ECOSPORT (license plate), and BUMPER. The bottom status bar shows 'Data Source' and a list of sheets: Sheet 1, Sheet 2, Sheet 3, Dashboard 2, Sheet 4, and Sheet 5.



Viz Animations

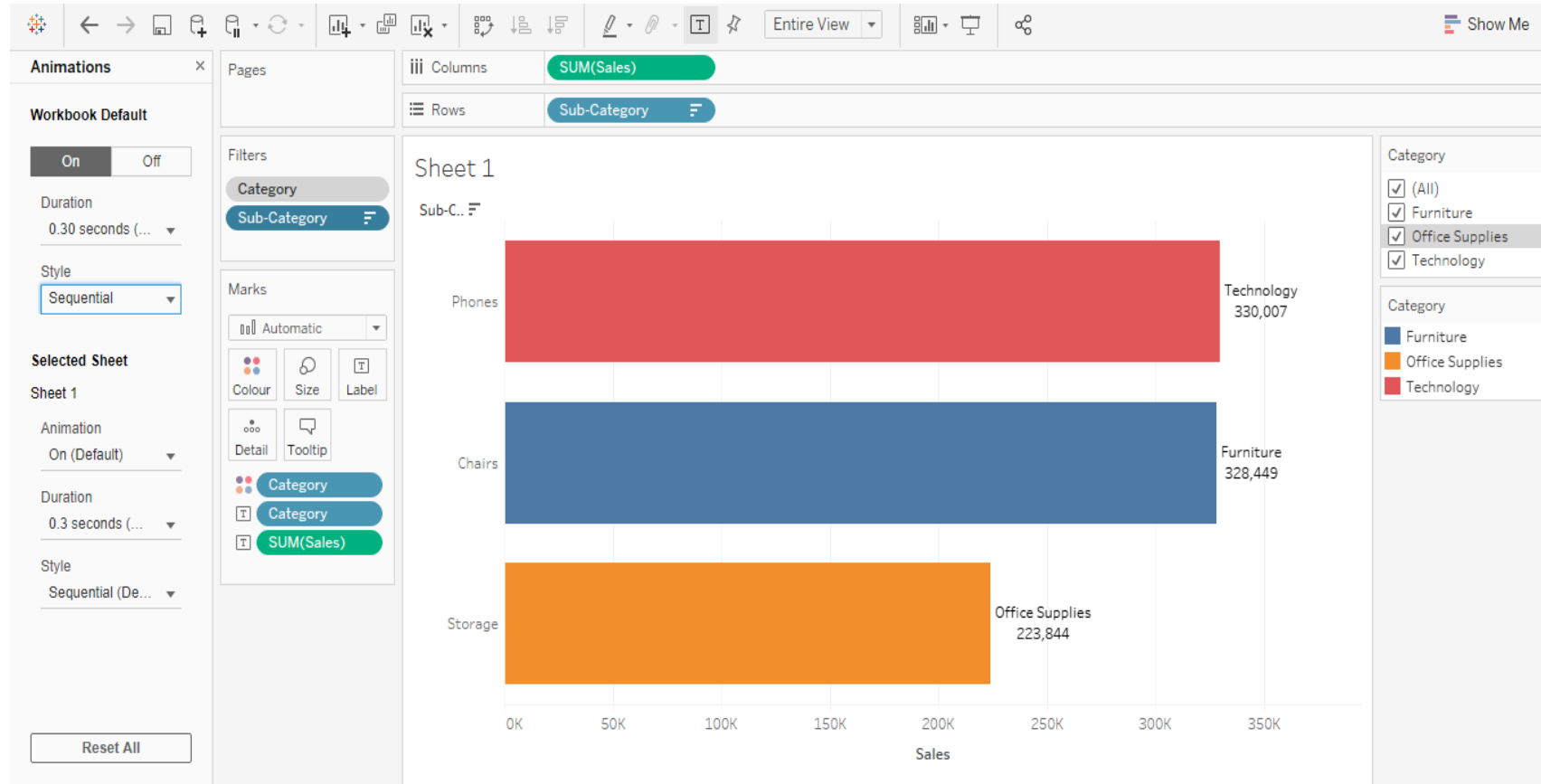
Tableau Viz animations was introduced in the version 2020.1. It's makes easier to explore, understand, and present your data, showing changes to tell powerful, moving data stories. Animations takes the data to the next level by putting data in motion.

To enable animations, just go to Format > Animations...



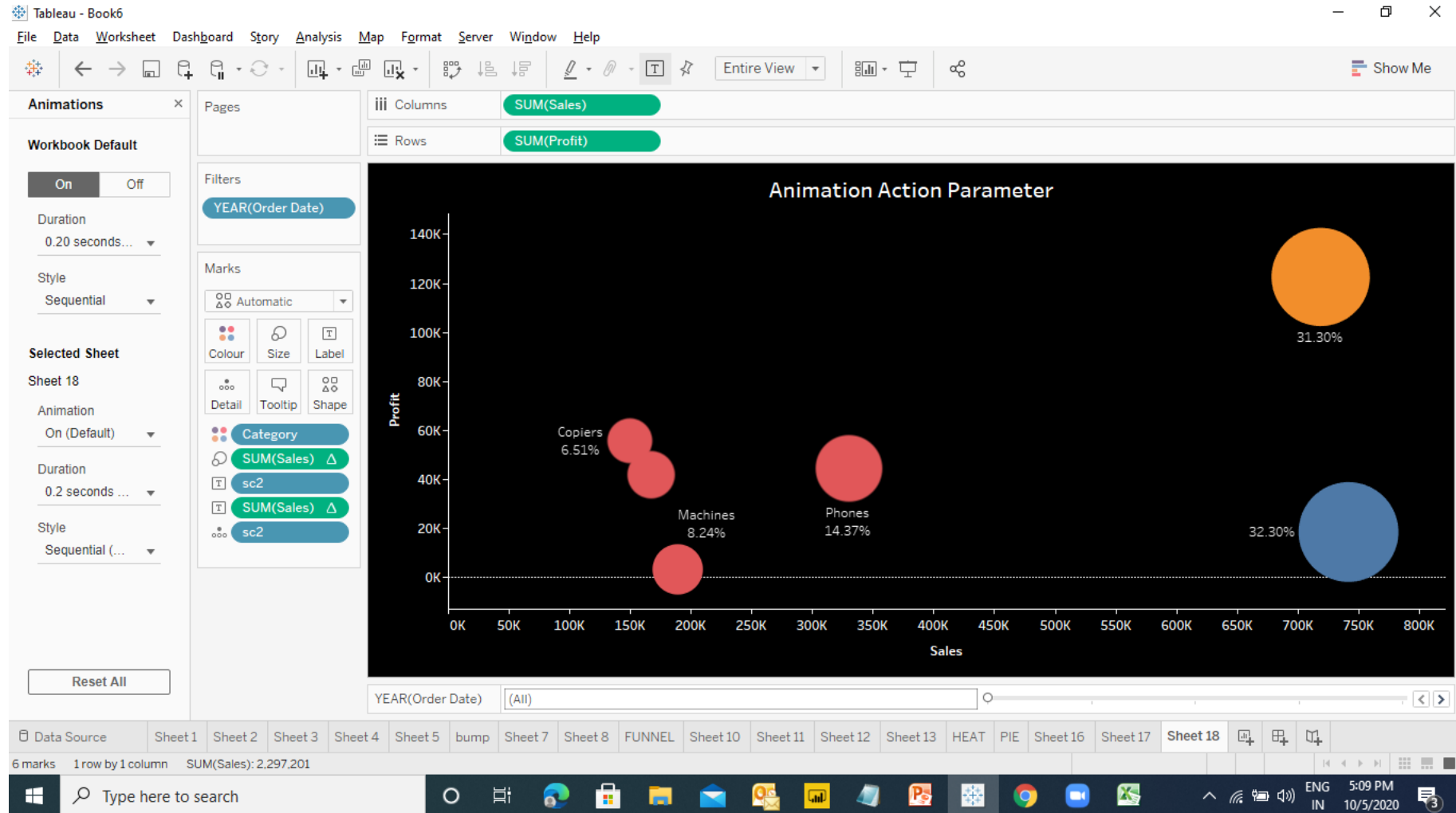
Viz Animations

Example 1 : Filter Animation



Viz Animations

Example 2: Action Parameter Animation

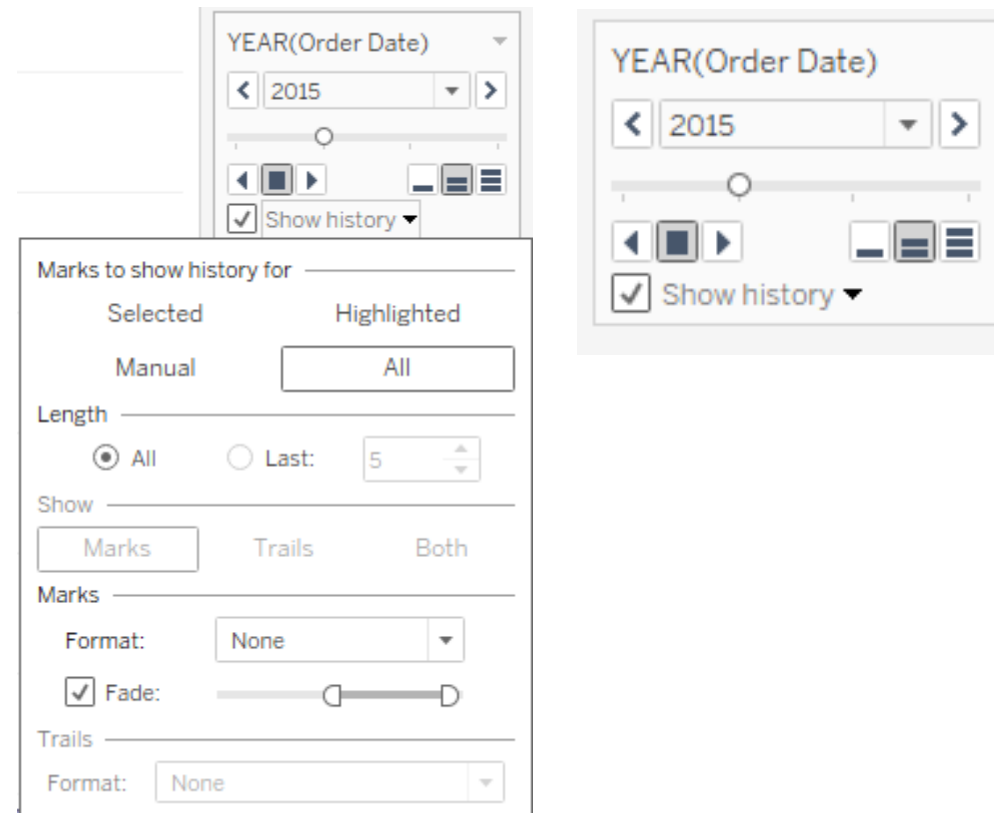


Motion Chart

A motion chart, is a moving or a mobile chart which gives an idea of the trail or the path that data points follow and make a trend. Motion chart moves from a starting point and goes to the endpoint leaving a trail of data points occurring in its path.

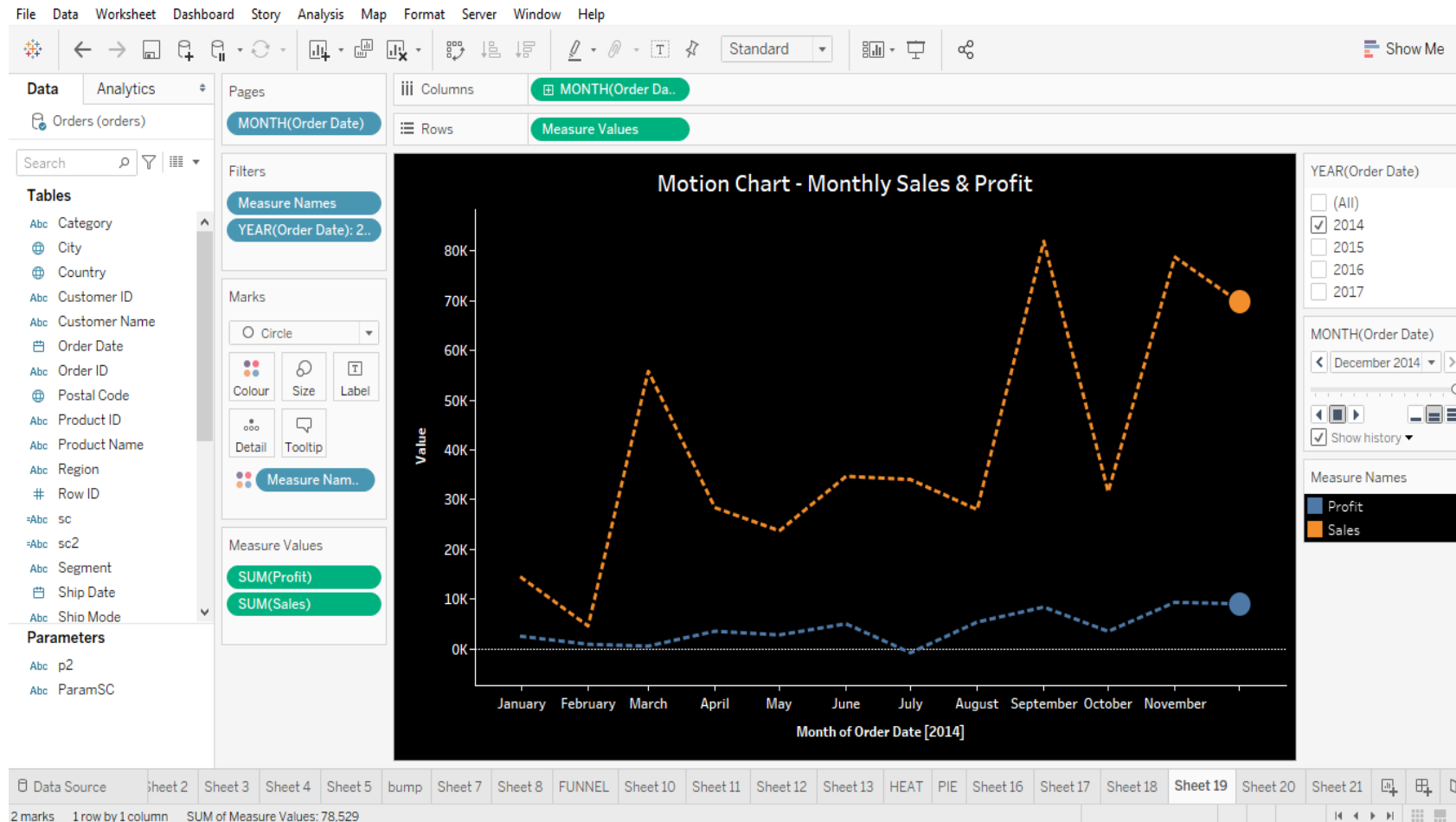
To make a motion chart we add the dimension field, (Order Date) into the Pages section, which gives a filter and play box on the right.

To set a motion path we need to use **Show history** option and edit the options.



Motion Chart

Example 1: A motion chart to display monthly sales & profit



Motion Chart

Example 2: Year wise segment sales

